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10/711,645	09/29/2004	Jerry Karlsson	7589.207.PCUS00	5644

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EXAMINER	
MAZUMDAR, SONYA	
ART UNIT	**PAPER NUMBER**
1734	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/711,645	KARLSSON ET AL.	
	Examiner	Art Unit	
	Sonya Mazumdar	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-14 and 17-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-14 and 17-26* is/are rejected.

7)☒ Claim(s) *8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Cancellation of claims 1 through 7, 15, and 16 has been acknowledged.

2. Addition of claims 24, 25, and 26 has been acknowledged.

Response to Arguments

3. Applicant's amendment to Figure 1 and cancellation of claims 15 and 16, filed October 16, 2006, with respect to the objection to the drawings have been fully considered the objection has been withdrawn.

4. Applicant's amendments, see page 2 in remarks filed October 16, 2006, with respect to the objection to the specification have been fully considered, and the objection has been withdrawn.

5. Applicant's amendments, see pages 3 and 9 in remarks filed October 16, 2006, with respect to the objection to claims 10 through 23 as being in improper form have been fully considered, and the objection has been withdrawn.

6. Applicant's amendments, see pages 3 and 4 in remarks filed October 16, 2006, with respect to the minor informalities in claims 8 and 9 have been fully considered, and the objection has been withdrawn.

7. Applicant's amendments, see pages 3, 4, and 11 in remarks filed October 16, 2006, with respect to the rejection of claims 8 and 9 under 35 USC 112, 2nd paragraph, have been fully considered, and the rejection has been withdrawn.

8. Applicant's arguments with respect to the rejection of claims 8 and 9 under 35 USC 102(b) have been considered but are not persuasive.

With respect to the arguments against claim 8, in manufacturing a composite layer structure, the claim can, but does not strictly limit, applying adhesive and fibers onto predetermined, specific areas of at least one cover sheet. Therefore, the rejection of claim 8 is still maintained in view of Anderson.

With respect to the arguments against claim 9, in manufacturing a composite layer structure, the claim can, but does not strictly limit, locally applying a mixture of adhesive and fibers onto predetermined areas of at least one cover sheet. Therefore, the rejection of claim 9 is still maintained in view of Sobolev.

Claim Objections

9. Claim 8 is objected to because of the following informalities: the word "and" after the words "density", "thickness, "length", and "material" should be removed and replaced with a "," to form a proper sentence. Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 10 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 2 of claim 10, a "screen printing like method" is disclosed. The phrase "-like" renders the claim indefinite because the claim includes elements not actually disclosed (those encompassed by "-like"), thereby rendering the scope of the claim unascertainable. See MPEP § 2173.05(d).

The term "in a similar way" in lines 4 and 5 of claim 14 is a relative term which renders the claim indefinite. The term "in a similar way" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claim 8 is rejected under 35 U.S.C. 102(b) as being unpatentable by Anderson et al. (US 3,684,637)

Anderson et al. teach a method for producing a laminate with cover sheets (19, 40) and a core there between comprising adhesive and fibers. Before the two cover sheets are joined together, one cover sheet (19) is applied with adhesive (23), and the other cover sheet (40) is initially applied with adhesive (42), fed from a supply source (43) and through a nip formed by a metering roll (44) and an applicator roll (45). Fibers of different kinds (52) are applied onto the cover sheet (40) from a flock supply (53) (column 2, line 13 –column 3, line 60; column 4, lines 50-67; Figure 2). Fiber properties such as density, thickness, length, and orientation relative to the cover sheets are important to consider when producing a laminate with specifically desired characteristics (column 1, lines 38-39; column 3, lines 26-36; column 4, lines 50-68).

14. Claims 9, 11, 14, and 18 are rejected under 35 U.S.C. 102(b) as being unpatentable by Sobolev (US 5,030,488).

With respect to claims 9 and 11, Sobolev teaches a method for producing laminates comprising two sheets with a filled resin and fibrous core. Before the two sheets are joined together, one cover sheet is applied in certain areas with a mixture of adhesive and fibers by a spray nozzle (abstract; column 8, lines 17-22; column 11, lines 38-45; Figures 1A and 1B).

With respect to claim 14, Sobolev teaches keeping certain areas in a laminate free of a mixture of adhesive and fibers in which it is machined to do so (column 16, lines 11-29; column 17, lines 29-35; Figures 3A and 3B).

With respect to claim 18, Sobolev teaches using a mixture of metallic and non-metallic fibers (column 11, lines 41-44 and lines 59-62).

15. Claims 24 through 26 are rejected under 35 U.S.C. 102(b) as being unpatentable by Sokolowski (US 3,327,708).

With respect to claims 24 and 26, Sokolowski teaches a method of producing laminates comprising two cover sheets with a fibrous core (28a). A patterned adhesive layer (16) is applied onto a cover sheet, then fibers (28) are applied on top of the adhesive layer, and another cover sheet is laminated onto the adhesive layer (column 6, lines 29-39; Figures 1 and 2).

With respect to claim 25, Sokolowski teach making laminates comprising permeable elements (column 1, lines 23-27), therefore, it is inherent that the laminates include channels suitable for guiding liquid or gaseous media.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

17. Claims 10, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. as applied to claim 8 above, and further in view of Otomine et al. (US 4,142,929)

The teachings of claim 8 are as described above.

With respect to claim 10, Anderson et al. do not teach applying an adhesive by a screen printing method, however, Otomine et al. teach an alternative method of silk screening an adhesive layer (column 3, lines 39-40; column 4, lines 3-9). It would have been obvious to use a screen printing method as Otomine et al. did to if desired to form any complicated letter or graphic adhesive layer to place fibers on.

With respect to claims 22 and 23, Anderson et al. do not teach transferring fibers from a carrier to a cover sheet and removing a carrier thereafter. Otomine et al. teach transferring a fibrous layer (3) from a base (1) to a substrate (7), and then removing the base (Figures 1 through 3).

It would have been obvious to use a transfer method, such as Otomine et al. taught, and one would have been motivated to do so to give the design a better visual effect that direct application may not allow.

18. Claims 12, 13, 17, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al., as applied to claim 8 above, and further in view of Gregorian et al. (US 4,035,532)

The teachings of claim 8 are as described above.

Anderson et al. do not teach using a foamed adhesive, applied substantially in dots. Gregorian et al. teach a method of transferring flock from a temporary substrate to a main substrate, by using a foamed adhesive at a desired viscosity to adhere the flock onto the main substrate (column 2, lines 3-9; column 4, lines 10-22; Figure 2).

It would have been obvious to use a foamed adhesive as Gregorian et al. taught to impart breathability to the main substrate with the adhesive's inherent porosity.

19. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al., as applied to claim 8 above, and further in view of Abrams et al. (US 5,858,156)

The teachings of claim 8 are as described above.

Anderson et al. do not teach applying fibers in the form of a positive/negative pattern onto a cover sheet. Abrams et al. teach electrodepositing flock by passing a sheet between potentials of a high voltage electrostatic field, and an electrode is used to give flock a charge and become aligned with the electrical field lines of force (column 5, lines 40-61; column 6, lines 13-35).

It would have been obvious for Anderson et al. to use a method such as Abrams et al. taught, and one would have been motivated to do so as a conventional alternative method in adhering flock to a sheet.

20. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al., as applied to claim 8 above, and further in view of Mesek (US 3,975,222)

The teachings of claim 8 are as described above.

Anderson et al. do not teach directing a steady or swirled stream of air onto the fibers in order to obtain an inordinate orientation of the fibers. Mesek teaches applying fibers through an air stream, which may be of increasing and decreasing fiber content across the stream (abstract; column 9, lines 48-51).

It would have been obvious to Anderson et al. to apply fibers through an air stream as Mesek taught, and one would have been motivated to do so to make a flexible laminate with loosely compacted fibers.

21. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US '637), as applied to claim 8 above, and further in view of Anderson (US 3,616,007).

The teachings of claim 8 are as described above.

Anderson et al. ('637) do not specifically teach steps of both pre-curing and final curing an adhesive layer. Anderson ('007) teaches softening and reactivating an adhesive material by heat before application of fibers and final curing the adhesive before rolling a laminate up for storage (column 4, lines 16-29).

It would have been obvious to pre-cure an adhesive and perform final curing on a laminate as Anderson ('007) taught, and one would have been motivated to do so to partially embed fibers after pre-curing an adhesive and produce a useable product in a final curing of the adhesive.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonya Mazumdar whose telephone number is (571) 272-6019. The examiner can normally be reached on 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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